

# INNOVATIVE SERVICE DELIVERY MODELS THAT IMPROVE ANTIRETROVIRAL TREATMENT COVERAGE AMONG KEY POPULATIONS

## OVERVIEW

Globally, key populations (KP) bear a disproportionate burden of HIV compared with the general adult population. Men who have sex with men and people who inject drugs have 24 times greater risk of infection, and sex workers have 10 times greater risk of acquiring HIV when compared with the general population.<sup>1</sup> Transgender people are 49 times more likely and prisoners are five times more likely to be HIV infected than the general population.<sup>2</sup>

Many of the factors that increase risk for HIV infection among KPs also compound the challenges that these populations experience in obtaining timely and respectful antiretroviral treatment (ART) services. Stigma, discrimination and criminalization of behaviors, in particular, are major factors restricting adequate coverage for prevention, testing and ART services among key populations. While great strides have been made in providing ART to reduce the global HIV burden,<sup>3</sup> comparatively less has been done to “fast track” ART services for KPs — who are estimated to account for more than 36 percent of all new HIV infections in 2015.<sup>1</sup>

## CDC'S ROLE

To increase ART coverage among KPs, the U.S. Centers for Disease Control and Prevention (CDC) works with multiple partners to design, implement, evaluate, and scale innovative models to identify HIV-positive KP and link them to HIV services supported by the U.S. President's Emergency Plan for AIDS Relief (PEPFAR).

Examples of CDC's strategic partnerships to produce high impact include:

- **Implementation Science:** With the introduction of the Key Population Implementation Science initiative in 2014, CDC has worked closely with multiple awardees to develop and execute implementation science protocols that identify effective models for diagnosing HIV-positive KPs and linking them to ART services. Key Population Implementation Science projects in Brazil, Guatemala, Kenya, South Africa, Thailand, and Ukraine are investigating a range of interventions, such as peer ART navigators, HIV self-testing, and same-day “Test and Start” models to improve the initiation and retention of KPs in HIV treatment.
- **Test and Start for Key Populations:** CDC partner ICAP at Columbia University provided technical assistance to implement, mentor and scale “Test and Start” models for KPs in Tanzania, Democratic Republic of Congo, Brazil, and Uganda.
- **Cascade monitoring:** CDC has partnered with University of California, San Francisco to conduct the Key Population Cascade Monitoring and Evaluation project in the Dominican Republic, Haiti, Uganda, Mozambique and Ukraine. The purpose of this effort is to improve data systems for constructing and evaluating HIV services cascades for KPs. With reliable HIV cascade data for KPs, CDC and UCSF are assisting country programs to target programmatic limitations along the HIV services continuum and act quickly to improve health outcomes for KPs.
- **Technical assistance:** CDC's global HIV Prevention and HIV Care and Treatment Branches deliver coordinated technical assistance to individual country programs to quickly identify and scale up effective ART delivery models for KP. Examples include: ART readiness assessments for KP prevention programs, sensitivity training for health care workers to provide KP-friendly services, differentiated models of care including Kenya's integrated clinic model for KP-friendly services, and fast-tracking clients with ART Clinic “KP Champions”.

## ACCOMPLISHMENTS / RESULTS

<sup>1</sup> Joint United Nations Programme on HIV/AIDS (UNAIDS). Prevention Gap Report. Geneva, Switzerland: UNAIDS; 2016.

<sup>2</sup> Baral SD, Poteat T, Strömdahl S, Wirtz AL, Guadamuz TE, Beyrer C. Worldwide burden of HIV in transgender women: a systematic review and metaanalysis. *Lancet Infect Dis.* 2013;113(3):214–222.

<sup>3</sup> PEPFAR Fact Sheet, 2016. PEPFAR Latest Global Results.

Many of CDC's investigations and assessments include components to improve ART coverage for KPs. Some preliminary data are available for the projects that are currently underway:

- Brazil's Key Population Implementation Science project showed that, among men who have sex with men accepting peer navigators after HIV diagnosis, a higher percentage are linked to ART services within 90 days compared with those who do not accept a peer navigator (83 percent versus 40 percent).
- In Thailand, among a cohort of nearly 2,000 MSM seeking HIV testing at health facilities, 84 percent (245 out of 292) of those diagnosed HIV-positive initiated ART in the immediate Test and Treat model.
- In Ukraine, a peer case management model for people who inject drugs (CITI) is associated with 65 percent ART initiation following HIV diagnosis. This is compared with 4 percent ART initiation in regions without a peer case management program for people who inject drugs.
- ART initiation among HIV-positive female sex workers at Kenya's Makongeni "integrated" health facility is 99 percent compared with 53 percent ART initiation among female sex workers nationally.
- A KP-supported program at Reach Out Mbuya in Uganda achieved 95 percent linkage to ART, 84 percent ART initiation, 90.6 percent retention on ART, and 85 percent viral suppression.

Additional programmatic accomplishments include:

- A KP sensitivity training for health care workers was translated into French, Spanish, Portuguese and Russian. This training has been conducted in 11 PEPFAR countries and regional programs with over 400 health care worker attendees. ICAP at Columbia University is conducting a program evaluation of the sensitization training curriculum to assess improved HIV cascade outcomes among KPs in Burma.
- A brief (five question) KP categorization tool was developed for use in clinical settings to capture KP data for program monitoring and improved HIV care.
- CDC collaborated with the World Health Organization to develop and disseminate HIV and sexually transmitted infection program implementation guidance for men who have sex with men, sex workers, and transgender people.<sup>4 5 6</sup>

## FUTURE EFFORTS

Building on recent synergy between CDC's global HIV Prevention and HIV Care and Treatment Branches, CDC will continue to assess and expand innovations in scaling effective ART services for KPs. Joint work will sensitize health care workers to provide competent HIV services, identify and promote promising models among CDC's PEPFAR-supported implementing partners, and provide specific technical support to improve HIV cascade data system capability and data use. This work will continue to improve ART coverage and outcomes for KPs. An HIV prevention to treatment continuum is under development in DRC, Uganda, and Tanzania to help scale up community-based models for providing and dispensing ART to HIV-positive KPs, as well as pre-exposure prophylaxis for high-risk negative KPs.

## BENEFITS OF OUR WORK

Best practices, promising programmatic data, and evidence-based interventions from CDC's efforts to improve ART coverage for key populations are frequently shared with the broader PEPFAR community, National Institutes of Health, World Health Organization, and UNAIDS. Through these channels and in other venues, innovations developed and scaled in individual countries and with specific KP subgroups may be translated to new settings and the broader KP community in the U.S. and globally.

<sup>4</sup> Implementing Comprehensive HIV/STI Programmes with Sex Workers [http://apps.who.int/iris/bitstream/10665/90000/1/9789241506182\\_eng.pdf](http://apps.who.int/iris/bitstream/10665/90000/1/9789241506182_eng.pdf)

<sup>5</sup> Implementing Comprehensive HIV and STI Programmes with Men Who Have Sex with Men [http://www.unfpa.org/sites/default/files/pub-pdf/MSMIT\\_for\\_Web.pdf](http://www.unfpa.org/sites/default/files/pub-pdf/MSMIT_for_Web.pdf)

<sup>6</sup> Implementing Comprehensive HIV and STI Programmes with Transgender People <http://www.undp.org/content/dam/undp/library/HIV-AIDS/Key%20populations/TRANSIT.pdf>